



Unpacking and Handling Procedures
RICH FM Reflector
Serial Number FM-00102

The following is a set of Handling and Packing Procedures for the RICH FM Mirror and Flight Spares, FS, for the AMS-02.

FM Container

The container for shipping the FM is the original container in which the mandrel was shipped to CMA. The FM is bolted to the conical ring supplied in the container by CGS. It is bolted from the 4 mounting points of the FM to 4 corresponding holes on the conical ring.

Unpacking the FM

1. Remove completely the bolts holding the shipping container halves together.
2. Carefully lift the top of the container straight up until the top has cleared the FM.
3. Remove the FM from the mounting cone at the 4 bolt locations at the base flange of the FM.
4. Remove completely the FM and place on a flat surface.

Handling the EM

1. Once the FM is unbolted, it is to be lifted off of the base by holding the reinforcement ribs on the back of the mirror.
2. **Under no circumstance is the surface of the mirror to be touched**
3. Always place the mirror on a flat level surface for storage.
4. Do not place a cover over the mirror unless the cover is designed so that it does not touch the surface of the mirror.
5. Do not place the mirror face down onto any surface for any reason. However, the mirror can be laid flat with the surface facing upward.
6. Do not attempt to clean the surface of the mirror with any chemicals or wipe the surface with a cloth of any kind. Small dust particles can be removed by either gently wiping with a feather duster or an aero or compressed gas duster.

Handling the FS

1. Carefully remove top of FS carton with the carton placed "Top" side up.
2. With gloves, carefully lift the FS out of the carton and place down on a table the convex side.
3. Carefully unwrap the FS covering.
4. Use no sharp tools on the concave side of the FS to remove wrap.
5. Either place FS on its bottom edge or on its back side down for storage.
6. It is advisable to place a soft cloth over the FS while it is on the bottom edge.



Cleaning FM/FS Optical Surface

While it is not advisable to touch the optical surface of either the FM or FS, the following must be observed if cleaning should become necessary

1. Using an aero duster or fine feather duster, carefully wipe any visible particulates from the optical surface.
2. Using a white Kleenex, with no lotion, colorant or scent, place a small amount, 10 – 15cc, of Isopropanol, IPA.
3. Carefully and gently wipe away the contaminated area until no streaking is visible. Do not completely wet the Kleenex with IPA as streaking can occur on the mirror surface, which is difficult to detect.
4. Never Dry Wipe the optical surface of the mirrors.
5. After adequately removing the contamination, carefully wipe away any residual lint from the Kleenex with either an aero duster or a fine feather duster.

Cleaning the Carbon Fiber, CF, Mirror Back and Reinforcement Structure

1. Using a soft lint-free cloth and a small amount of IPA, carefully wipe the contaminated areas of the CF structure.
2. After the contamination has been cleaned, carefully remove any residual lint with either an aero duster or fine feather duster.